

REMARKS

Claims 46-89 are present for examination.

Amendments:

Claims 1-45 are canceled and replaced by new claims 46-89. The new claims are presented as four analogous sets of claims: 46-56 (system claims); 57-67 (method claims); 68-78 (server claims); and 79-89 (recording medium claims). Within the first set of claims, claims 46, 54, 55 and 56 are independent claims, and claims 47-53 are dependent claims. The other three sets of claims are arranged in the same way.

Prior Art Rejections:

The previous independent claims were rejected under 35 U.S.C. § 103(a) as being obvious over Mei (U.S. 6,816,907) in view of Dougliis (U.S. 6,487,596). Applicant believes that the new claims are allowable over these references. The examiner is requested to consider the new claims with the following points in mind.

Claims 46-53, 57-64, 68-75 and 79-86

Independent claim 46 describes a communication system involving a plurality of client terminals connected through a network to a server. The server stores disconnection condition information for each of the client terminals. The server monitors the connection states of the client terminals and decides whether the connection state of a client terminal matches a disconnection condition for that terminal. If it does, the server disconnects the terminal. The connection state of a client terminal is represented by two items of control information that are received by the server from the client terminal.

It is believed that this would not have been obvious from the Mei and Dougliis references previously cited. Mei describes a system that provides different users with different classes of service (e.g., Fig. 4 Gold, Silver and Bronze) based on their identity or network address (see Fig. 3). The service levels determine the amount of system resources that the user can utilize (e.g.

Fig. 4, Servers, Storage, Bandwidth). When a user exceeds the resources available at that level of service, the system can take actions to reduce the utilized resources. Three examples are provided at col. 7, first full paragraph, in relation to Figure 7. The examples are: if too much storage is used, evict other stored objects; if too many requests are received, redirect requests to another server; if too much bandwidth is used, provide a telephone number for contacting an alternate server.

There are several notable differences between Mei and claim 46. Claim 46 specifies that a server determines whether a connection state of a client matches a disconnection condition for that client based on two pieces of control information received from the client, and disconnects when there is a match. In Mei, the server checks resource usage conditions and adjusts resource utilization when a utilization is exceeded. These decisions are not based on two items of control information received from the client, rather they are based on monitoring the resources of the system itself such as storage used, number of requests received, and total bandwidth used, which are single parameters. Further, the resources are not monitored in order to detect whether a disconnection condition is matched, rather they are monitored to detect whether an allocated resource is exceeded.

With respect to the prior claims, the rejection cited Mei at col. 7, lines 11-13 as teaching a server that monitors a connection state of a client terminal. Applicants understand this section, referred to above, to describe actions taken by Mei's server depending on which resource has been exceeded. It does not involve monitoring two items of control information received from a client. The rejection also cited Mei at col. 7, lines 20-22 as teaching disconnecting a client terminal when its connection state corresponds to its disconnection condition. Applicants understand this section to describe Mei's action of providing an alternate telephone number if bandwidth is exceeded. This decision is not based on monitoring of two items of control information received from the client terminal, and does not determine whether a disconnection condition for the client is matched.

Claim 46 would not be obvious even in view of the combination of Mei with Dougliis. Dougliis describes a modem bank system in which time-out thresholds are used to disconnect

users. The disconnection decision is not based on monitoring of two items of control information received from the client terminal.

Therefore it is submitted that independent claim 46 describes subject matter that is patentably distinguished over Mei and Dougliis. Independent claims 57, 68 and 79 recite analogous features and are distinguished for the same reasons.

With respect to dependent claims 47-50, 58-61, 69-72 and 80-83, these claims specify that the two items of control information received from the client terminal and used to determine a disconnection condition are a transmission address and a reception address. Such control information is not described or used to determine a disconnection condition in either Mei or Dougliis.

With respect to dependent claims 51-52, 62-63, 73-74 and 84-85, these claims specify that the two items of control information received from the client terminal and used to determine a disconnection condition are an application server address and a service identifier. Such control information is not described or used to determine a disconnection condition in either Mei or Dougliis.

With respect to claims 53, 64, 75 and 86, these claims specify that when more than one client terminal meets its disconnection condition, the client terminal that was logged in at an earliest time is disconnected. This feature is not taught or suggested by Mei or Dougliis.

Claims 54, 65, 76 and 87

Independent claim 54 is similar to independent claim 46, but specifies that a client terminal is disconnected when a predetermined time period has elapsed since a packet has been communicated between the client terminal and an application server. Such a feature is not taught by Mei. Dougliis teaches disconnection after a specified period of time, but does not teach that the period of time is measured from a last packet from the client addressed to an application server. Therefore it is submitted that claim 54 describes subject matter that is patentably distinguished from Mei and Dougliis. Claims 65, 76 and 87 recite analogous features and are distinguished for the same reasons.

Claims 55, 66, 77 and 88

Independent claim 55 is similar to independent claim 46, but specifies that a client terminal is disconnected when a predetermined time period has elapsed since the arrival of a packet that includes the address of an application server and a service identifier. Claim 55 further specifies that the predetermined time period is stored in conjunction with that particular application server address and service identifier. Such a feature is not taught by Mei. Dougkis teaches disconnection after a specified period of time, but does not teach that the period of time is measured from a last packet from the client having a given application server address and service identifier. Therefore it is submitted that claim 55 describes subject matter that is patentably distinguished from Mei and Dougkis. Claims 66, 77 and 88 recite analogous features and are distinguished for the same reasons.

Claims 56, 67, 78 and 89

Independent claim 56 is similar to independent claim 46, but specifies that a client terminal is disconnected when a volume of packets from a client terminal that include a specific transmission and reception address exceeds a specific volume. Such a feature is not taught by Mei. Dougkis teaches disconnection after a specified period of time, but does not teach disconnection based on the volume of packets having a specific transmission and reception address. Therefore it is submitted that claim 56 describes subject matter that is patentably distinguished from Mei and Dougkis. Claims 67, 78 and 89 recite analogous features and are distinguished for the same reasons.

Conclusion:

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application. The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit

Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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